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Ref: 8EPR-SR

**ACTION MEMORANDUM AMENDMENT**

**SUBJECT:** Action Memorandum Amendment for the Time-Critical Removal Action at the Libby Asbestos Site – Libby, Lincoln County, Montana.

**FROM:** Robert E. Roberts  
Regional Administrator

**TO:** Thomas P. Dunne  
Acting Assistant Administrator  
Office of Solid Waste and Emergency Response

**THROUGH:** Michael B. Cook, Director  
Office of Emergency and Remedial Response

Site ID#: BC  
Category of Removal: Time Critical, NPL, EPA Fund-Lead

**I. INTRODUCTION**

The purpose of this Action Memorandum Amendment is to request and document Headquarters approval of a ceiling increase for the Libby Asbestos Site (Site) in Lincoln County, Montana. The scope of the Removal Action is unchanged. The previous Action Memorandum Amendment dated May 2, 2002 set forth the need and scope for additional cleanup activities at the Site. Those cleanup activities are progressing. However, the difficulty and expense of cleanup is greater than anticipated and additional removal ceiling is required to ensure cleanup continues as necessary. The Region 8 team continues to seek ways to ensure the cleanup is highly protective and cost effective.

**II. SITE CONDITIONS AND BACKGROUND**

**A. Site Description**

The initial Action Memorandum and subsequent Amendments provide basic descriptions

of the vermiculite mine, vermiculite processing facilities, several contaminated properties, and the conditions found throughout the Libby Valley. Since the date of the previous Action Memorandum Amendment (May 2002), the Site became final on the NPL in October 2002. Additional investigation has focused on evaluating conditions at individual residential and commercial properties throughout Libby as necessary to implement the response actions set forth in May 2002. Based upon this investigation, EPA estimates that over 1200 properties will require cleanup in the future.

#### B. Other Actions to Date

The previous Action Memorandum Amendment provided a description of various activities at the Site and their progress as of May 2002. These activities were completed or continued as necessary and additional activities were started. For activities or locations that were NOT completed as of May 2002, an updated summary is found below:

<b>PREVIOUS ACTIONS</b>	
<b>Location</b>	<b>Action Description and Updated Status</b>
Export Plant	W.R. Grace demolished and disposed of four buildings on the property and removed approximately 17,500 cubic yards of contaminated soil and debris from the property. EPA completed remaining demolition work at the property of one building in 2002. The lumber business formerly operating at this location was relocated by EPA and Grace in 2003 to a new location in Libby. Work here is complete.
Screening Plant	This property consists of five distinct, contiguous parcels. EPA completed cleanup of the primary parcel, Raintree Nursery, in 2003. Approximately 17 acres were addressed and 250,000 cubic yards of contaminated debris and soil were removed. Restoration of this parcel is essentially complete, with only punchlist items remaining for early 2005. EPA also completed cleanup of an additional parcel in 2004, cleaning up approximately four additional acres. EPA completed cleanup of approximately 1/3 of the Flyway parcel in 2002; W.R. Grace cleaned up the remainder of the parcel in 2004. Several areas of the KDC Bluffs parcel were cleaned up by EPA in 2001; some lower level contamination remains which will be evaluated later. The only extensive removal work remaining consists of the Wise property and right of way along Highway 37. This work is scheduled to occur in 2005.
Rainy Creek Road	Forest service access road to the former vermiculite mine. Highly contaminated. Site access remains restricted. Nearly half the road was paved and semi-permanent decon stations were installed to facilitate soil disposal at the former mine. Soil disposal is ongoing.
Libby High School and Middle School Tracks	Both tracks were restored in 2003. Work is complete.

Siefke Property	Highly contaminated, large residential property identified early. Cleanup was completed in 2002 and restoration was completed in 2004.
Johnson, Sanderson, Temple, Struck, Rice, Fuhlendorf, Spencer, and Westfall properties.	Highly contaminated residential properties identified early. Cleanup and restoration was completed in 2003.
Champion Haul Road	Cleanup was completed in 2003.
<b>NEW ACTIONS</b>	
<b>Location</b>	<b>Action Description and Updated Status</b>
Riverside Park and Boat Ramp	Subsurface contamination was encountered and spread during construction of a new park and boat ramp by the City of Libby in 2003. The parcel is contiguous to the former screening plant. EPA halted construction and cleaned the parcel in late 2003. Approximately 15 acres of soil were excavated to an average depth of two feet. Cleanup and restoration is complete.
Lincoln County Landfill Asbestos Cell	EPA constructed and operates a new cell at the Lincoln County Landfill that is used for disposal of vermiculite insulation and other construction debris. Construction of the cell was completed in 2003. The cell was expanded in 2004. Disposal operations are ongoing.
Burlington Northern Santa Fe Railyard	BNSF began cleanup of the contaminated rail yard in 2003 but had to cease work due to complexities with soil removal below the tracks. Work began again in 2004, most tracks were removed, and is complete. Most contaminated soils were removed, but some contaminated was capped in place.
Former Stimson Lumber Mill	EPA conducted extensive sampling of the former lumber mill and has identified two primary areas requiring cleanup. The first of these, the former central maintenance building, is scheduled to be cleaned up in 2005. The second, a former nursery area, is to be further investigated in 2005 and will likely be cleaned up in 2006.
Systematic screening and cleanup of individual residential and commercial properties in Libby Valley	EPA inspected and sampled over 3400 properties in 2002, 2003, and 2004. Most inspection is complete. Based upon this investigation and ongoing risk assessment, we estimate at least 1200 properties will require cleanup. As of December, 2004, 350 properties have been cleaned up. Work is ongoing.

Troy, MT	Nearby smaller town suspected of containing similar contamination to Libby, although generally smaller in scope. The Montana Department of Environmental Quality and EPA have signed a cooperative agreement which calls for MDEQ to conduct screening of individual properties in 2006. Background work will begin in 2005.
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### C. Current Actions

EPA is continuing systematic investigation and cleanup of individual properties throughout the Libby valley as described in the May 2002 Action Memorandum Amendment. Approximately 350 properties have been completed and an additional 170 are scheduled for 2005. Additionally, EPA is conducting sampling and other research to better understand and quantify the risks present in Libby as well as evaluating the efficacy of current cleanup approaches. EPA expects to publish a Record of Decision in late 2005 or early 2006.

### D. State, Local, and Other Authorities Roles

There are no significant changes in roles from the May 2002 Amendment, other than MDEQ assuming the lead role in investigation and screening of Troy, MT.

## **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

Other than properties that have been cleaned up, site conditions in Libby still present significant threats to public health. In fact, ongoing investigation has shown the number of properties requiring cleanup is somewhat higher than originally anticipated.

## **IV. ENDANGERMENT DETERMINATION**

The actual or threatened releases from this Site, if not addressed by continuing to implement the response actions set forth in the original Action Memorandum and subsequent Amendments, may present an imminent and substantial endangerment to public health, welfare, or the environment.

## **V. EXEMPTION FROM STATUTORY LIMITS**

The original Libby Action Memorandum dated May 23, 2002 provided the documentation required to meet the NCP Section 300.415(b)(2) criteria for a Removal Action and the CERCLA Section 104(c) emergency exemption from the \$2 million and one year limits on Removal Response Actions. The most recent Action Memorandum Amendment dated May 2002 expanded the scope of removal actions and raised the approved removal ceiling to \$55,635,000. The conditions necessitating removal actions and the emergency exemption have not changed. However, the difficulty and costs of mitigating these conditions have proven higher

**Comment [i1]:** V.I.A. below cites both difficulties and number of properties as reasons for cost increase. V.I.G. lists additional reasons. This AM may raise a lot of questions.

I suggest you start your communications strategy right here by writing in two sound bites that we will repeat consistently. Something like "attribute ceiling increase an increase of an estimated X properties and to the technical difficulties in removing asbestos from homes".

Then, in **V.I.G. below**, elaborate just a bit more on the same exact factors. Make it in the form of sound bites we can all easily repeat explaining why there are more homes and the specific technical. Also – you might point out that these factors are offsetting our cost savings accrued in the areas of efficiency, labor rates, etc.

than originally estimated. Region 8 is requesting an additional increase to the removal ceiling in order to continue and complete work approved in the May 2002 Amendment.

## **VI. PROPOSED ACTIONS AND ESTIMATED COSTS**

### **A. Proposed Action Description**

The Action Memorandum Amendment dated May 2002 set forth the proposed actions. Other than increased numbers of properties likely requiring cleanup, and increased difficulties of conducting the actions, the scope has not changed.

### **B. Contribution to remedial performance**

The Site was made final on the NPL in October 2002. While cleanup at the Site continues to be conducted using removal authority, the Site was transitioned to the Region 8 Remedial Program in directly after final listing on the NPL. Collection of information and data necessary to perform an RI, and ultimately to write a Record of Decision, is occurring concurrently with the conduct of the removal actions. Information and experience gained during the removal actions is used to continually refine the process and to plan for future work. Likewise, as more information is learned about the nature of the contamination and the risks presented, adjustments to the cleanup approach are made as necessary. Wherever possible, effort is made to focus on the most contaminated properties first and also to ensure that properties are cleaned to a sufficient level such that cleanup must occur only once. This approach is protective as well as cost effective. It is expected that remedial measures will be similar in scope to removal action being conducted now.

### **C. Description of alternative technologies**

EPA attempts to employ the most appropriate technologies for addressing risks, but there are no known alternative technologies available at this time for addressing asbestos. Cleanup occurs through the systematic use of several existing technologies, including removal, containment, and encapsulation. Wherever necessary and possible, EPA considers unique applications of these technologies to meet site-specific cleanup objectives.

### **D. EE/CA**

No EE/CA is required.

### **E. Applicable or relevant and appropriate requirements**

See the Federal and State ARARs identified and/or discussed in the original Action Memorandum dated May 23, 2000.

### **F. Project Schedule**

Pending approval of this Amendment, work will continue beginning in February 2005. Depending upon funding received, approximately 170-200 properties are expected to be cleaned per year until all contaminated properties are addressed. The exact number of properties remaining to be cleaned up will not be known until publication of a Record of Decision, expected in late 2005 or early 2006. At this point, however, EPA expects more than 1000 properties still remain to be cleaned up, and the majority of those will meet the conditions set forth in the May 2002 Action Memo Amendment for emergency response. Cleanup of these properties using removal authority is expected to continue until publication of a Record of Decision. EPA anticipates that 1-2 years of additional cleanup using removal authority, and 4-6 years of additional work using remedial authority are likely. The overall project schedule is contingent upon funding and the final number of properties requiring cleanup.

#### G. Estimated Costs

Cleanup costs are affected by the difficulty of cleanup, the unique nature of the Libby cleanup, contracting strategy, and market conditions. Before systematic cleanup of residential and commercial properties began, it was difficult to estimate future costs because cleanup of this nature and scope had generally not been attempted. While the scope of cleanup has not changed, the May 2002 Action Memorandum Amendment significantly underestimated the average cleanup cost per property, did not accurately account for disposal costs, and underestimated the number of properties requiring cleanup. Because of this, EPA R8 has reached the removal ceiling quicker than anticipated and the job is not complete. However, after two years of investigation and cleanup, R8 is able to more accurately forecast cleanup requirements, both on a per property basis and overall. Because of this increased accuracy, and for simplicity, this Amendment provides only a basic, cumulative breakout of existing and proposed removal ceilings (Table 1), as well as a summary of other external costs that have been incurred that do not count against the removal ceiling (Table 2). The ceiling increase is projected to cover two years of additional removal actions at rates similar to those conducted in 2003 and 2004 (170-200 properties expected to be cleaned per year). It is expected a Record of Decision will be published within two years, and cleanup will switch to remedial authority as necessary.

**Comment [i2]:** IIA says "EPA estimates that over 1200 properties will require cleanup in the future."

Table in IIB says "Based upon this investigation and ongoing risk assessment, we estimate at least 1200 properties will require cleanup. As of December, 2004, 350 properties have been cleaned up."

You should make all these consistent.

**Comment [i3]:** You could elaborate on these factors in a separate paragraph. These factors don't fit nicely with the language that immediately follows, so the reasons for cost increases are a bit clouded – and that will work against us.

**Comment [i4]:** Excellent basis. This is the story that is easily understood because it's common sense. I would put this part second.

**Comment [i5]:** I would lead with this sentence and add the ceiling number because HQs' immediate questions are likely "How much will this cost?" and "What are we paying for?". I'd get the bad news over with up front.

Table 1. Proposed Site Ceiling

Category	Current Ceiling (Action Memo Amendment dated May 2, 2002)	Proposed Ceiling Increase	Proposed Total
Extramural Costs	\$45,525,000	\$30,000,000	\$75,525,000
Contingency @ 20% of Extramural	\$9,100,000	\$6,000,000	\$15,100,000
Intramural Costs	\$960,000	\$100,000	\$1,060,000
<b>TOTAL</b>	<b>\$55,635,000</b>	<b>\$36,100,000</b>	<b>\$91,735,000</b>

Table 2. Other major expenditures not counted against ceiling. Note that amounts are approximate.

Task	Previous Expenditures Through CY 2004 (approximate)	Planned Expenditures CY 2005-2006 (approximate)
Phase I and Phase II Removal Sampling Investigations	\$8,100,000	0
Medical Screening Support	\$500,000	0
Contaminant Screening Study (first phase of Remedial Investigation)	\$5,000,000	\$500,000
Remedial Investigation & Risk Assessment	\$2,500,000	\$2,000,000
Performance Evaluation/ Analytical Methods Study	\$1,000,000	\$500,000
USGS Support	\$2,000,000	0
Community Involvement	\$500,000	\$500,000
Database Creation and Management	\$2,000,000	\$1,500,000
<b>TOTAL</b>	<b>\$21,600,000.00</b>	<b>\$5,000,000.00</b>

**Comment [i6]:** Excellent table. You understate the shift of expenses away from support (and presumably toward cleanup). If the numbers are favorable you might consider adding to table 1 something that shows how much goes directly to cleanup.

DRAFT



## **VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

Delayed action will result in continued public exposure to unsafe amounts of amphibole asbestos. This will increase the risk to public health and continue to burden an already impacted community.

## **VIII. OUTSTANDING POLICY ISSUES**

Because there is no change in scope, there are no new policy issues or considerations.

## **IX. ENFORCEMENT**

Attachment 1 is a confidential summary of Enforcement Actions.

## **X. RECOMMENDATION**

This decision document represents the selected Removal Action for the removal of asbestos sources from targeted homes, businesses, and public buildings at the Libby Asbestos Site in Lincoln County, Montana. The proposed removal actions have been developed in accordance with CERCLA as amended and are consistent with the NCP. The decision is based on the Administrative Record for the Site.

Conditions at the Site meet the NCP [40 CFR § 300.415(b)] criteria for a Removal Action, and the NCP [40 CFR § 300.415(b)(5)(ii)] criteria for an exemption from the statutory limits. I recommend your approval of the proposed removal action ceiling increase.

Approve: \_\_\_\_\_ Date: \_\_\_\_\_

Thomas P. Dunne  
Acting Assistant Administrator  
Office of Solid Waste and Emergency Response

Disapprove: \_\_\_\_\_ Date: \_\_\_\_\_

Thomas P. Dunne  
Acting Assistant Administrator  
Office of Solid Waste and Emergency Response

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